

StarTrack Environmental Performance Report for 1998



Company Profile

Name

Sanders, A Lockheed Martin Company

P.O. Box 868

Nashua, NH 03061-0868

(603) 885-4321

Background

Sanders, a Lockheed Martin Company, is engaged in the development, manufacture and sale of advanced electronic systems and products in a broad range of defense electronics markets. An operating company of the Lockheed Martin Electronics Sector, Sanders is a leader in the design, development and manufacture of electronic systems for global defense, civil and commercial markets. The company is a major producer of aircraft self-protection systems and tactical surveillance and intelligence systems for all branches of the armed forces. Other major business areas include microwave, mission and space electronics, and automated mission planning systems.

Sanders was founded in Waltham, MA in July 1951 as Sanders Associates, Inc. by eleven engineers and scientists from Raytheon's "Lab 16." Named for Royden C. Sanders, Jr., one of the original eleven associates, the fledgling company moved its operations to Nashua, New Hampshire in 1952 and within ten years grew to become one of the nation's top 100 defense contractors.

Sanders quickly built a reputation for technical excellence, pioneered in the field of electronic countermeasures systems, and has produced more on-board self-protection systems for military aircraft than any other company in the world. During the air war in Vietnam, Sanders became widely known for its ability to meet quick reaction requirements for countermeasure solutions. This tradition

continued through Operation Desert Storm in the Persian Gulf, and, most recently in support of 1999 U.S. air operations in Kosovo.

In August 1986, Sanders Associates was acquired by the Lockheed Corporation, and in 1990 a merger in New Hampshire of Sanders and the remaining portions of the Lockheed Electronics Company from Plainfield, NJ, created Lockheed Sanders, Inc. On March 15, 1995, with the formal merger of Lockheed and Martin Marietta, the company became Sanders, a Lockheed Martin Company.

Number of Employees

4200 (As of 8/99)

Facility Locations

Nashua, NH

Merrimack, NH

Hudson, NH

Manchester, NH

Chelmsford, MA

Contact Person

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Management Systems

ESH Organization Structure

1. Company President
2. Vice President, Mission Success
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3. Director, ESH and Facilities
4. Environmental Group (3)
5. Safety Group (3)
6. Industrial Hygiene Group (2)

Environmental Policy

Sanders' environmental policy is the driver for its environmental management system. Both the Company President and Vice President of Mission Success are signatories of the policy. A copy can be found in the main lobby of each facility. The language of Sanders policy is presented below.

“Sanders will manage its business in a way that protects the environment and the safety and health of its employees. The company will:

- *Comply with ESH legislation and regulations, and Lockheed Martin Corporate Policy 015 Environment, Safety and Health, and ESH function procedures.*
- *Annually review its operations for significant ESH risks and set specific targets to reduce them.*
- *Strive for continuous improvement in providing a safer, healthier environment for our employees and the prevention of pollution.*
- *Integrate ESH considerations in Company business practices and include ESH requirements when designing work environments, products and services.”*

Management Directives and Practices (MDPs)

Sanders' ESH Policy, contained in Management Directive and Practice (MDP) 22.70, provides the foundation for managing ESH. The Company also has MDPs governing the Chemical and Material Review Committee (MDP 22.71) and the ESH Council (MDP 22.72). Both of these MDPs were developed in 1997.

ESH Council

An ESH Council was established in 1997, composed of senior management with a direct report of the President serving as chairperson. The Council provides strategic direction and oversight of ESH policies and programs by reviewing ESH compliance self-audit results. They also review ESH performance against goals, and set ESH objectives for the following calendar year.

Business Partners

Appointment of ESH staff as Business Partners to the Business Areas was implemented during the second quarter of 1997. The objective was to integrate ESH into the Sanders business culture, and emphasize a proactive focus. The ESH business partner attends business unit staff meetings, provides feedback on ESH metrics, and learns about activities that could have ESH impact. The business partner also acts as a liaison for that division and meets periodically with a designated contact.

ESH Program Managers

Within Sanders ESH, program managers are assigned to specific compliance programs covering applicable elements of OSHA, EPA, State, and Local regulatory requirements.

Training

Established programs ensure that Sanders employees and management are given the tools and knowledge to enhance environment, safety and health performance in their operations. The ESH portion of New Employee Orientation includes an overview of

ESH; a description of ISO 14001; general environmental, safety, and industrial hygiene awareness; including hazard communication and facility evacuation. As part of this orientation program, new employees are given a copy of an ESH Employee Awareness Handbook.

ESH and ISO 14001 Homepages

Maintained behind a firewall, Sanders hosts an ESH and ISO 14001 homepage for its employees' knowledge. Both of these sites detail information about the ISO standard, ESH contacts, and provides links to other pages, including the Corporate Lockheed Martin ESH homepage.

ESH Manual

Sanders maintains an ESH Manual on its company-wide intranet. The manual is divided into several key sections:

Section 1 – Management Responsibilities

Section 2 – ESH Management Systems

Section 3 – Environmental Programs

Section 4 – Safety Programs

Section 5 – Occupational Health

Section 6 – Training Programs

Section 7 – ESH Manual History

The main purpose of the manual is to communicate ESH guidance and direction to all employees of Sanders, at every level of the company.

ISO 14001

Sanders is an ISO 14001 registered company. Having received its initial registration in November 1997, the Company has been through one successful annual surveillance audit (1998). Sanders' next annual surveillance audit will be in November 1999.

Community Relations

Sanders is involved with local emergency planning commissions (LEPCs) as well as the Business and Industry Association (BIA) of NH, and various other community groups. Recently, Sanders ESH participated in a Y2K tabletop exercise with local Nashua officials and community emergency planning coordinators.

ESH Performance

StarTrack Compliance Audits

ESH program managers conduct compliance audits annually. In addition, various groups from within Sanders participate in ESH compliance self-audits. These include Joint Loss Management Committees, Quality Assurance, user groups, managers and supervisors, Facilities and ESH professionals.

StarTrack EMS Audits

EMS audits are conducted annually in accordance with ISO 14001 requirements. Divisional VP/GMs or their senior delegates review the results. Since first becoming ISO 14001 registered in 1997, Sanders has had one surveillance audit in 1998 resulting in no significant findings. The Company's next surveillance audit is scheduled for November 1999.

CAB, CARB, and QSMR

ESH has also become involved in the previously established Corrective Action Boards (CABs), Corrective Action Review Boards (CARBs), and the Quality System Management Review (QSMR).

On-site Remediation Programs

Sanders manages two on-site groundwater remediation programs:

65 Spit Brook Rd. Site - Ongoing groundwater pump-and-treat (carbon beds) operation managed in accordance with U.S. EPA, NHDES, and City of Nashua rules and regulations. Primary contaminants are 1,1,1-trichloroethane, trichloroethene, 1,1-dichloroethene, 1,1-dichloroethane, and tetrachloroethene.

Chelmsford Site – Ongoing groundwater clean-up under the Massachusetts Contingency Plan. Primary contaminants are trichloroethene, 1,2-dichloroethene, tetrachloroethene, 1,2-dichlorobenzene, and vinyl chloride.

Energy/Water Usage

Electricity	84,446 K KWH	\$6,248,000
Natural Gas	571,557 CCF	\$266,500
Propane	9,386 Gal	\$7,075
#2 Oil	35,664 Gal	\$23,369
#6 Oil	667,192 Gal	\$298,703
Water	104,795,934 Gal	\$245,150

ESH Metrics

Employee Hours Worked		
10,964,887		
Days Away from Work Cases		18
Days Away Case Rate		.33
Days Away from Work		131
Lost Work Day (Severity) Rate		2.39
OSHA Recordable Cases		
80		
OSHA Recordable Case Rate		1.46
Workers' Compensation Costs	Paid:	\$60,088
	Reserved:	\$137,129

RCRA Hazardous Waste	Cost:	\$107,616.58
	Lbs.:	358,227.42
	Lbs./Employee:	71.23
Solid Waste	Cost:	\$38,631.18
	Lbs.:	758,030
	Lbs./Employee:	150.73
Air Emissions (1997 Tons)	NOx:	23.5
<i>*1998 data not available at time of report</i>	SOx:	90.4
	CO:	25.9
	TSP:	8.3
	VOC:	2.9

SARA 313 Reportables

Sanders has been below all SARA 313 reporting thresholds since 1993.

Underground Storage Tanks

In 1985 Sanders had more than 400,000 gallons of petroleum products stored in 48 single-walled USTs at company owned or leased facilities. In the late eighties, The Company embarked on a major effort to eliminate or replace existing tanks, and by 1997 Sanders had removed all of its single walled USTs. Sanders now has four double-walled USTs with cathodic protection.

Compliance Issues

Arsenic Wastewater Treatment

In December 1997, City of Nashua Wastewater Treatment personnel conducted a routine inspection of Sanders' Microwave Electronics Center that included wastewater sampling. Both the City's sample and Sander's split indicated an arsenic excursion against Nashua's Sewage Disposal Ordinance.

Troubleshooting and maintenance was conducted on the treatment system. It was determined that the treatment system could no longer reliably meet new discharge criteria. In March of 1998 Sanders began collecting wastewater for offsite disposal, and started evaluating a new arsenic wastewater treatment system.

The new system was installed in January of 1999, and is currently under performance acceptance testing. Treated wastewater is held in tanks and batch sampled before being released to the local sewer system, ensuring that no wastewater is discharged unless it meets all permit conditions.

Lead Wastewater Treatment

In November 1998, City of Nashua Wastewater Treatment personnel conducted a routine inspection of Sanders Spit Brook Rd. facility that included wastewater sampling. Both the City's sample and Sander's split indicated a lead excursion against Nashua's Sewage Disposal Ordinance.

The cause of the lead excursion was determined to be operational error; maintenance had not been kept up on the lead treatment system according to an existing procedure. Corrective action was taken and preventative measures were formalized into a new O&M procedure. Subsequent samples have been in compliance with City limits.

Fuel Oil USTs

Sanders maintains four, double-walled, 20,000 gal. USTs for storing No. 6 fuel oil at its Nashua facilities: two at 65 Spit Brook Rd. and two at Canal St. In July of 1998 one of the USTs at Canal St. was temporarily closed due to a leak detected in the interstitial space. The tank was scheduled for replacement when a second UST at 65 Spit Brook Rd. developed an interstitial leak and was temporarily closed in March of 1999.

Since the two tanks were relatively new (approx. 8 years old) it was determined that a study was warranted before replacing the tanks with similar styles and

risking a repeat of interstitial failure. A corrosion protection engineer was retained to identify why both tanks leaked and provide replacement options. The Company plans to repair/replace both tanks as soon as the best option is determined. The engineering report is expected in September of 1999. Based upon the recommendations in the report, Sanders will take the necessary measures to restore the integrity of its onsite oil storage capabilities.